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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,660	07/21/2003	Takashi Yamaguchi	2018-743	3836

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EXAMINER

BETTS JR, ROGER D

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/622,660

Applicant(s)

YAMAGUCHI ET AL.

Examiner

Roger D. Betts Jr.

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Analysis

Independent Claims 1, 4, and 10 are prefaced as a subcombination filter, while being further referenced as 'fixed' in a line. It is unclear whether the claims are to be considered as combination (i.e. filter plus a fluid passage body) or subcombination (i.e. filter alone). For examination purposes, the claims have been treated as subcombinations.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Glaser et al. (U.S. Patent No. 5,449,459). In view of Claim 1, Glaser et al. (459) discloses a filter comprising: an inlet section (Fig. 3, within 62), filter section integral with the inlet section having a plurality of holes (Fig. 2, 48), and a closed end section (Fig. 2, 49). Glaser et al. (459) also discloses the closed end being hemispherically-shaped (Fig. 3) (claim 2), and the closed end being conically shaped (Fig. 5) (claim 3).

2. Glaser et al. (459) also discloses an inlet section (Fig. 3. within 62), filter section integral with the inlet section having a plurality of holes (Fig. 2, 48), and a closed end section (Fig. 2, 49), wherein the diameter of the holes is larger at a radially outer side of the filter section than at a radially inner side of the filter section (Fig. 8, 108) (claim 4), wherein each of the plurality of holes (Fig. 2, 48; Col. 3, 56-58), is tapered to have the diameter gradually increasing toward the outer side of the filter section (Fig. 8, 108) (claim 5), wherein each of the plurality of holes is stepped to have the diameter gradually increasing toward the outer side of the filter section (Fig. 10, 116, 118, 120) (claim 6), wherein the plurality of holes is shaped in different shapes (Fig. 10, 116, 118, 120) (claim 7), wherein the plurality of holes is shaped in two shapes comprising a straight bore (Fig. 7, 102) and a tapered bore (Fig. 7, 104) (claim 8), and wherein the closed end section is shaped so that a cross-sectional area between an outer surface of the closed end section and the inner surface of the fluid passage body (between 14 and 36) increases gradually in a fluid flow direction (Fig. 1) (claim 9).

3. Claim 10 is rejected under 35 U.S.C 102(b) as being unpatentable over Stearns et al. (US Patent No. 4,003,836) or Pakki et al. (US Patent No. 4,251,375). Stearns (836) discloses a filter comprising: an inlet section (Fig. 1, 22)(Col. 2, 43-53), a filter section (Fig. 2, 34)(Col. 2, 54-60) having a plurality of holes (Fig. 2, 34) to filter the fluid, a closed end section (Fig. 2, 30) wherein the closed end section has no hole (Fig. 2, 30) to disable flow of the fluid in an axial direction.

4. Pakki et al (375) also discloses a filter comprising: an inlet section (Fig.1,6)), a filter section having a plurality of holes (Fig. 1, 10) to filter the fluid, a closed end section (Fig. 1, 8) wherein the closed end section (Fig. 1,8) has no hole to disable flow of the fluid in an axial direction.

Claim Rejections - 35 USC § 103

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claim 11 is rejected under 35 U.S.C 103(a) as being unpatentable over Pakki et al. (375), Glaser et al. (459) or Stearns et al. (836). These prior art references all teach a combination disclosing a filter comprising: an inlet section, a filter section with a plurality of holes, and a closed end section.

6. Applicant's language of determining the cross-sectional area of the holes at the peripheral surface of the filter section in the tubular fluid passage is believed to be addressed by the fluid to be filtered, the particulates to be retained in the filter, the pressure, volume, viscosity, and the receptacle in which the fluid would be retained, as best understood. Once a fluid is selected, all of the variables would fall into place and be within the skill of the artisan to optimize the relative diameter of the openings.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger D. Betts Jr. whose telephone number is (571) 272-8153. The examiner can normally be reached on Monday-Friday from 7:30 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is (703)-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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